

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

2818
Hw

Applicant: Y. Ahn et al.

Title: EVAPORATED LaAlO₃ FILMS FOR GATE DIELECTRICS

Docket No.: 1303.046US1

Serial No.: 10/081,439

Filed: February 20, 2002

Due Date: N/A

Examiner: Douglas A. Wille

Group Art Unit: 2818

Mail Stop Amendment

Commissioner for Patents

P.O. Box 1450

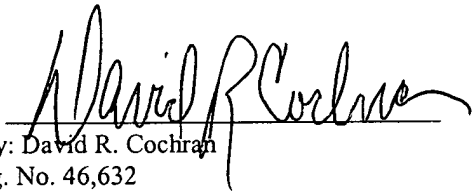
Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

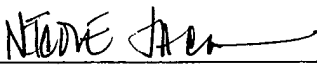
- ☒ A return postcard.
- ☒ A Communication Concerning Related Applications (2 pgs.).
- ☒ A Supplemental Information Disclosure Statement (1 pg.), Form 1449 (1 pg.), and copies of 15 cited documents.

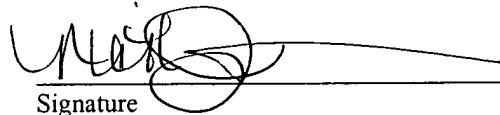
Please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
Customer Number 21186

By: 
Atty: David R. Cochran
Reg. No. 46,632

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 27 day of October, 2004.


Name


Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
(GENERAL)



S/N 10/081,439

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kie Y. Ahn et al. Examiner: Douglas A. Wille
Serial No.: 10/081,439 Group Art Unit: 2818
Filed: February 20, 2002 Docket: 1303.046US1
Title: EVAPORATED LAAIO3 FILMS FOR GATE DIELECTRICS

COMMUNICATION CONCERNING RELATED APPLICATIONS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related applications in the above-identified patent application:

<u>Serial/Patent No.</u>	<u>Filing Date</u>	<u>Attorney Docket</u>	<u>Title</u>
10/863,953	June 9, 2004	1303.031US2	HIGHLY RELIABLE AMORPHOUS HIGH-k GATE DIELECTRIC ZrOxNy
10/930,138	August 31, 2004	1303.044US2	EVAPORATION OF Y-Si-O FILMS FOR MEDIUM-k DIELECTRICS
10/930,184	August 31, 2004	1303.021US2	GATE OXIDES AND METHODS OF FORMING
10/930,516	August 31, 2004	1303.078US2	ATOMIC LAYER DEPOSITED HfSiON DIELECTRIC FILMS
10/931,341	August 31, 2004	1303.082US2	ATOMIC LAYER DEPOSITED ZR-SN- TI-O FILMS USING TiI4
10/930,431	August 31, 2004	1303.056US2	ATOMIC LAYER-DEPOSITED HfAlO3 FILMS FOR GATE DIELECTRICS
10/931,365	August 31, 2004	1303.059US2	Pr2O3-BASED La-oxide GATE DIELECTRICS
10/931,364	August 31, 2004	1303.069US2	LANTHANIDE DOPED TiOx DIELECTRIC FILMS BY PLASMA OXIDATION
10/931,343	August 31, 2004	1303.101US2	LANTHANIDE OXIDE / HAFNIUM OXIDE DIELECTRIC LAYERS
10/931,340	August 31, 2004	1303.107US2	LANTHANIDE OXIDE / HAFNIUM OXIDE DIELECTRICS

COMMUNICATION CONCERNING RELATED APPLICATIONS

Serial Number: 10/081,439

Filing Date: February 20, 2002

Title: EVAPORATED LAAlO₃ FILMS FOR GATE DIELECTRICS

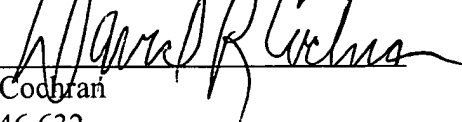
Page 2

Dkt: 1303.046US1

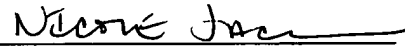
10/931,356 August 31, 2004 1303.026US2 HIGHLY RELIABLE AMORPHOUS
HIGH-K GATE OXIDE ZrO₂

Respectfully submitted,
KIE Y. AHN ET AL.

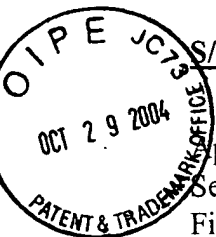
By Applicants' Representatives,
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 371-2157

Date 27 October 2004 By 
David R. Cochran
Reg. No. 46,632

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 27 day of October, 2004.


Name


Signature



S/N 10/081,439

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kie Y. Ahn et al.

Examiner: Douglas A. Wille

Serial No.: 10/081,439

Group Art Unit: 2818

Filed: February 20, 2002

Docket: 1303.046US1

Title: EVAPORATED LaAlO₃ FILMS FOR GATE DIELECTRICS

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Supplemental Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Supplemental Information Disclosure Statement considered.

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,
KIE Y. AHN ET AL.

By their Representatives,
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 371-2157

Date 27 October 2004

By

David R. Cochran

Reg. No. 46,632

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 27 day of October, 2004.

Nicole Ahn
Name

[Signature]
Signature

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

Application Number	10/081,439
Filing Date	February 20, 2002
First Named Inventor	Ahn, Kie
Group Art Unit	2818
Examiner Name	Wille, Douglas

Sheet 1 of 1

Attorney Docket No: 1303.046US1

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-2003/0119291A1	06/26/2003	Ahn, Kie Y., et al.			12/20/2001
	US-2003/0207593A1	11/06/2003	Derderian, G. J., et al.	438	778	05/02/2002
	US-5,302,461	04/12/1994	Anthony, T. C.	428	472	06/05/1992
	US-5,625,233	04/29/1997	Cabral, Jr., C., et al.	257	771	01/13/1995
	US-6,040,243	03/21/2000	Li, J., et al.	438	687	09/20/1999
	US-6,300,203	10/09/2001	Buynoski, M. S., et al.	438	287	10/05/2000
	US-6,451,662	09/17/2002	Chudzik, M., et al.	438	386	10/04/2001
	US-6,461,914	10/08/2002	Roberts, D. R., et al.	438	253	08/29/2001
	US-6,531,354	03/11/2003	Maria, J., et al.	438	216	01/17/2001
	US-6,620,670	09/16/2003	Song, K., et al.	438	216	01/18/2002
	US-6,627,503	09/30/2003	Ma, Y., et al.	438	287	04/30/2002
	US-6,683,011	01/27/2004	Smith, R. C., et al.	438	785	11/14/2001
	US-6,696,332	02/24/2004	Visokay, M. R., et al.	438	216	06/21/2002
	US-6,699,745	03/02/2004	Banerjee, A., et al.	438	238	03/27/1998

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T ²
--------------------	---------------------	------------------	---	-------	----------	----------------

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		OHMI, S., et al., "Rare Earth Metal Oxides for High-K Gate Insulator", Electrochemical Society Proceedings, Volume 2002-2, (2002),376-387	

EXAMINER**DATE CONSIDERED**

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional) ² Applicant is to place a check mark here if English language Translation is attached